

# INTERNATIONAL SEARCH REPORT

International Application No

PCT/IB2004/052105

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 H05K3/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H05K H01L G02F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 98/37133 A (JABLONSKI GREGORY A ; KYDD PAUL H (US); RICHARD DAVID L (US); PARTNERS) 27 August 1998 (1998-08-27) claims 6,7,12	1-6,8, 11,12, 14-17 9,10,13, 18,19
X	US 4 336 320 A (CUMMINGS JOHN P ET AL) 22 June 1982 (1982-06-22)  the whole document	1-6,8, 11,12, 14-17
X	US 4 645 733 A (SULLIVAN DONALD F) 24 February 1987 (1987-02-24) claims, figures	1,11,14
X	US 5 747 222 A (RYU JAE-CHUL) 5 May 1998 (1998-05-05) the whole document	1,11,14
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

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Date of the actual completion of the international search

29 December 2004

Date of mailing of the international search report

12/01/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Batev, P

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 716 663 A (GALLAGHER CATHERINE ET AL) 10 February 1998 (1998-02-10)  column 11, line 58 - column 12, line 21; figure 7	1-6,8, 11,12, 14-17
Y	US 2003/108664 A1 (DENHAM HUGH ET AL) 12 June 2003 (2003-06-12) paragraphs '0294!, '0301!, '0355! - '0367!; claims 1,9	9,10,13, 18,19

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/IB2004/052105

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9837133	A	27-08-1998	AU 4269697 A CA 2280115 A1 EP 0961809 A1 JP 3585244 B2 JP 2001515645 T WO 9837133 A1 US 6379745 B1	09-09-1998 27-08-1998 08-12-1999 04-11-2004 18-09-2001 27-08-1998 30-04-2002
US 4336320	A	22-06-1982	EP 0060682 A2 JP 57160194 A	22-09-1982 02-10-1982
US 4645733	A	24-02-1987	US 4528259 A EP 0208023 A1 GB 2176942 A US 4756929 A US 4775611 A US 4706167 A	09-07-1985 14-01-1987 07-01-1987 12-07-1988 04-10-1988 10-11-1987
US 5747222	A	05-05-1998	KR 155877 B1 CN 1155158 A ,B DE 19636735 A1 JP 9130051 A	15-12-1998 23-07-1997 13-03-1997 16-05-1997
US 5716663	A	10-02-1998	US 5830389 A US 5376403 A US 5853622 A US 5948533 A AU 663342 B2 AU 2767892 A CA 2120523 A1 EP 0646048 A1 JP 2972338 B2 JP 7502369 T KR 9710170 B1 MX 9205644 A1 WO 9306943 A1 US 5538789 A US 5565267 A	03-11-1998 27-12-1994 29-12-1998 07-09-1999 05-10-1995 03-05-1993 15-04-1993 05-04-1995 08-11-1999 09-03-1995 21-06-1997 31-08-1994 15-04-1993 23-07-1996 15-10-1996
US 2003108664	A1	12-06-2003	US 2003175411 A1 US 2003124259 A1 US 2003161959 A1 CA 2461338 A1 EP 1448725 A2 WO 03032084 A2	18-09-2003 03-07-2003 28-08-2003 17-04-2003 25-08-2004 17-04-2003